

Amendments to the Claims

1-28. (Canceled)

29. (Currently amended) Safety apparatus, comprising:

a needle hub having a main body including a proximal portion and a distal portion, a needle extending from a distal end of said needle hub, said hub including a wall that extends orthogonally from the main body substantially at the junction where the proximal portion meets the distal portion;

a collar having a proximal end rotatably mounted ~~directly on~~ onto the distal portion of said needle hub so as to be rotatable about said needle hub, the wall at said hub providing a stop for the proximal end of said collar, said collar having a distal end and a first engage mechanism at it's the inner circumferential surface at the distal end;

a housing pivotally connected to the proximal end of said collar; and

a needle sheath having a proximal portion with a second engage mechanism at its outer circumferential surface, said first and second engage mechanisms fitted to each other when said sheath is fitted to the distal end of said collar, said proximal portion of said needle sheath ~~having only one side being~~ in contact engagement to said collar but not in contact with said needle hub for covering said needle extending from the distal end of said needle hub ~~and said sheath is not in contact with said needle hub~~ when said sheath is fitted to said collar and said first and second engage mechanisms are engaged to each other.

30. (Previously presented) Safety apparatus of claim 29, wherein after said needle sheath is removed from said collar, said housing is pivotable to a position substantially in alignment along a longitudinal axis of said needle hub for covering said needle.

31. (Previously presented) Safety apparatus of claim 29, wherein said second engage mechanism of said needle sheath comprises a groove formed circumferentially proximate to it's the open end of sad needle sheath and wherein said first engage mechanism of said

collar comprises a rib circumferentially formed at the inner wall of the distal end of said collar; and

wherein said needle sheath is attached to said collar when said rib of said collar mates with said groove after said needle sheath is positioned over said needle and engages said collar.

32. (Currently amended) Safety apparatus of claim 29, wherein said needle hub comprises a luer end at its proximal portion, a ring surrounding and spaced from said luer end, said ring being ~~integral of said needle hub via a distal end~~ integrally connected to the wall extending transversely therefrom the main body of said hub; and

wherein a user can readily grasp said ring to couple said safety device to a medical device by threadingly mating said luer end of said needle hub to a counterpart luer end at said medical device.

33. (Currently amended) Safety apparatus of claim 32, wherein said ring comprises at least one window along its sidewall to enable the user to view said luer end of said needle hub and said needle hub.

34. (Currently amended) Safety apparatus of claim 29, wherein said needle hub comprises at least one flange extending from its distal portion, said flange being located a predetermined distance from ~~a~~ the wall projecting orthogonally from said needle hub, a space being formed between said flange and said wall circumferentially about said needle hub; and

wherein said collar comprises at least one protrusion at the inner wall of its proximal portion, said protrusion being dimensioned to fit to said space defined between said flange and said wall when said collar is mated to said needle hub, said collar rotatable about said needle hub after matingly fitted to said space.

35. (Previously presented) Safety apparatus of claim 29, wherein said housing comprises a longitudinal opening formed by first and second lips each extending along

substantially the length of said housing, said first lip overlapping a portion of said second lip with said opening being off centered from said longitudinal axis, each of said lips being angled toward the interior of said housing with the respective angles of said lips being varied along the length of said housing to effect a guide for said needle to smoothly enter into said housing at an angle through said opening when said housing is pivoted to cover said needle, said needle not removable from said housing once said needle fully enters into said housing.

36. (Previously presented) Safety apparatus of claim 29, wherein said collar has formed proximate to its distal end one lock mechanism and wherein said housing has formed at its proximal end an other lock mechanism, said one and other lock mechanisms coacting to fixedly retain said housing to said collar once said housing is pivoted to a position in substantial alignment with said needle hub to cover said needle.

37. (Previously presented) Safety apparatus of claim 36, wherein said one lock mechanism comprises at least one one way catch member extending from the outer surface of said collar or said housing, and said other lock mechanism comprises at least one corresponding aperture at said housing or said collar, said one way catch member matingly coupled to said aperture for fixedly retaining said housing to said collar when said housing is pivoted to cover said needle.

38. (Currently amended) In combination, a needle hub having a main body including a proximal portion and a distal portion, said proximal portion having a luer connector and a ring in the form of a circumferential sidewall surrounding but in spaced relationship with said luer connector, said ring being an integral part of said hub and is connected to a wall that extends orthogonally from the main body substantially at the junction where the proximal and distal portions of said needle hub meet, at least one window provided along the sidewall at said ring to enable viewing of said luer connector, said ring being graspable by a user to remove said needle hub from a syringe, said distal portion of said needle hub having a distal end from which a needle extends, a collar having a proximal end and a

housing pivotally connected ~~thereto directly to the proximal end~~ fitted to and rotatable about said distal portion of said needle hub, and a needle sheath having a proximal portion with ~~only one side~~ in contact engagement to the distal end of said collar; said needle sheath but not in contact with said needle hub when said sheath is fitted to said collar, said sheath and removable from said collar to expose said needle for use.

39. (Previously presented) Combination of claim 38, wherein said needle sheath comprises a first engage mechanism proximate to its open end and wherein said collar comprises a second engage mechanism at its distal portion, said first engage mechanism engages said second engage mechanism for attaching said needle sheath to said collar when said needle sheath is positioned over said needle and mates with said collar.

40. (Previously presented) Combination of claim 38, wherein said needle sheath comprises a circumferential groove proximate to its open end and said collar comprises a circumferential rib at its distal portion, said rib mating to said groove when said needle sheath is positioned over said needle and fitted to said collar.

41. (Previously presented) Combination of claim 38, wherein said ring comprises at least one window on its sidewall to enable viewing of said luer connector and said proximal portion of said needle hub.

42. (Previously presented) Combination of claim 38, wherein said ring is adaptable to be used by a user to grasp said needle hub for connecting said luer connector to a corresponding luer connector of a medical device.

43. (Currently amended) Combination of claim 38, wherein said needle hub comprises a plurality of flanges extending from its distal portion, said flanges being located a predetermined distance from ~~a~~ the wall projecting orthogonally from said needle hub, a space being defined between said flanges and said wall circumferentially about said needle hub, and wherein said collar comprises a plurality of protrusions at the inner wall of its

proximal portion, said protrusions being dimensioned to fit to said space when said collar is mated to said needle hub, said collar rotatable about said needle hub after matingly fitted to said space.

44. (Previously presented) Combination of claim 38, wherein said housing comprises a longitudinal opening formed by first and second lips each extending along substantially the length of said housing, said first lip overlapping a portion of said second lip with said opening being off centered from said longitudinal axis, each of said lips being angled toward the interior of said housing with the respective angles of said lips being varied along the length of said housing to effect a guide for said needle to smoothly enter into said housing at an angle through said opening when said housing is pivoted to cover said needle, said needle not removable from said housing once said needle fully enters into said housing.

45. (Previously presented) Combination of claim 38, wherein said collar has formed proximate to its distal end a first lock mechanism and wherein said housing has formed at its proximal end a second lock mechanism, said first and second lock mechanisms coacting to fixedly retain said housing to said collar once said housing is pivoted to a position in substantial alignment with said needle hub to cover said needle.

46. (Currently amended) A method of making a needle assembly, comprising the steps of:

a) providing a needle hub having a main body including a proximal portion and a distal portion, said hub including a wall that extends orthogonally from the main body at the junction where the proximal and distal portions meet;

b) fixedly attaching a needle to a distal end of said needle hub;

c) pivotally connecting a housing to a proximal end of a collar having a distal end and a first engage mechanism formed at ~~it's~~ the inner circumferential surface at the distal end;

d) rotatably mounting the proximal end of said collar ~~directly on~~ onto the distal portion of said needle hub so that said collar is rotatable about said needle hub, the wall at said hub providing a stop for the proximal end of said collar; and

e) fitting a needle sheath having a second engagement mechanism at it's the circumferential outer surface at its proximal portion to the distal end of said collar, said first and second engage mechanisms fitting to each other so that said sheath is removably engaged to said collar ~~and only one side of a,~~ the proximal portion of said needle sheath is being engaged to said collar without said needle sheath contacting said needle hub for covering said needle extending from the distal end of said needle hub.

47. (Previously presented) Method of claim 46, further comprising the steps of:
removing said needle sheath from said collar before using said needle; and
pivoting said housing to a position substantially in alignment along a longitudinal axis of said needle hub for covering said needle.

48. (Previously amended) Method of claim 46, wherein said second engage mechanism comprises a circumferential groove formed proximate to an open end of said needle sheath, and wherein said first engage mechanism comprises a rib formed circumferentially at the inner wall of a distal portion of said collar; and
wherein said step e comprises the steps of:
positioning said needle sheath over said needle; and
engaging said needle sheath to said collar until said rib of said collar mates with said groove of said needle sheath.

49. (Previously presented) Method of claim 46, wherein said step a comprises the steps of:
forming a luer end at the proximal portion of said needle hub; and
forming a ring in spaced relation to surround said luer end, said ring being integral of said needle hub via a distal end wall;

wherein a user can readily grasp said ring to couple said needle assembly to a medical device by mating said luer end of said needle hub to a counterpart luer end at said medical device.

50. (Currently amended) Method of claim ~~24~~ 46, wherein said forming a ring step further comprises the step of:

forming at least one window on said ring to enable the user to view said luer end of said needle hub and said needle hub.

51. (Currently amended) Method of claim 46, wherein said step a comprises the steps of:

providing at least one flange extending from said distal portion of said needle hub;
and

locating said flange a predetermined distance from a the wall projecting orthogonally from said needle hub to define a space between said flange and said wall circumferentially about said needle hub;

wherein the method further comprising the steps of:

forming at least one protrusion at the inner wall of said collar;

dimensioning said protrusion to fit to said space defined between said flange and said wall; and

mating said collar to said needle hub, said collar rotatable about said needle hub after being mated to said space.

52. (Previously presented) Method of claim 46, further comprising the step of:

providing a longitudinal opening along said housing by forming first and second lips each extending along substantially the length of said housing, said first lip overlapping a portion of said second lip with said opening being off centered from said longitudinal axis, each of said lips being angled toward the interior of said housing with the respective angles of said lips being varied along the length of said housing to effect a guide for said needle to smoothly enter into said housing at an angle through said opening when said housing

is pivoted to cover said needle, said needle not removable from said housing once said needle fully enters into said housing.

53. (Previously presented) Method of claim 46, further comprising the steps of:
forming a first lock mechanism proximate to the distal end of said collar; and
forming a second lock mechanism at a proximal end of said housing;
wherein said first and second lock mechanisms coact to fixedly retain said housing to said collar once said housing is pivoted to a position in substantial alignment with said needle hub to cover said needle.

54-55. (Canceled)